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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
08/813,200	03/07/1997	MITSUHIRO HIRANO	2342-0107P	3165

2292 7590 07/16/2002

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EXAMINER

RAO, SHRINIVAS H

ART UNIT

PAPER NUMBER

2814

DATE MAILED: 07/16/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>		<b>Applicant(s)</b>	
	08/813,200		HIRANO, MITSUHIRO	
	<b>Examiner</b>		<b>Art Unit</b>	
	Steven H. Rao		2814	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 30 April 2002.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 10, 11, 16 and 18 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☐ Claim(s) \_\_\_\_\_ is/are rejected.
- 7) ☐ Claim(s) 10, 11, 16 and 18 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                             | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____  |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)         | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ | 6) <input type="checkbox"/> Other: _____                                    |

**DETAILED ACTION**

***Priority***

Receipt is acknowledged of paper submitted under 35 U.S.C. 119(a)-(d), which papers filed on 3/7/97 ( previously entered ) have been placed of record in the file.

***Continued Prosecution Application***

The request filed on 4/108/2002 for a Continued Prosecution Application (CPA) under 37 CFR 1.53(d) based on parent Application No. 08/813,200 is acceptable and a CPA has been established. An action on the CPA follows.

***Information Disclosure Statement***

Acknowledgment is made of receipt of Applicant's Information Disclosure Statement (PTO-1449) filed April 10, 2002.

The references on PTO 1499 submitted on 4/10/02 are acknowledged. All the cited references have been considered. However the foreign patents and documents cited by applicant are considered to the extent that could be understood from the abstract and drawings.

The initialed 1449 has been made of record and the contract employees instructed to mail a copy of the initialed 1449 along with the instant office action.

***Preliminary Amendment Status***

Acknowledgment is made of entry of preliminary amendment filed 2/13/2002 has been entered on April 30, 2002.

Therefore claims 10, 11, 16 and 18 as recited in the amendment of 2/13/02 are currently pending in the application.

***Claim Objections***

Claims 11 and 16 are objected to because of the following informalities:

Claim 11 line 10 "the other end" has no antecedent basis. It is suggested that the phrase be changed to "an other end". Similarly line 27 "the inside" should be changed to "a inside" and line 28-29 "the atmospheric pressure" should be changed to an atmospheric pressure.

Similarly Claim 16 "the other end" has no antecedent basis. It is suggested that the phrase be changed to "an other end".

Appropriate correction is required.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 10, 11, 16 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shiraiwa (U.S. Patent No. 5,273,423, herein after Shiraiwa)

previously applied and Yanagawa et al. ( U.S. Patent No. 5,277,215, herein after Yanagawa) Saeki ( U.S. Patent No. 5,223,001, herein after Saeki) also cited by the applicants in their IDS of April 03, 2002, newly applied.

With respect to claims 10 and 11, Shiraiwa teaches a substrate processing chamber as previously stated.

Shiraiwa does not specifically mention the newly added limitation of the atmospheric pressure vent line being connected to the vacuum exhaust line.

However, Yanagawa Claims 10, 11, 16 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shiraiwa ( U.S Patent No. 5,273,423, herein after Shiraiwa) previously applied and Yanagawa et al. ( U.S. Patent No. 5,277,215, herein after Yanagawa) Saeki ( U.S. Patent No. 5,223,001, herein after Saeki) also cited by the applicants in their IDS of April 03, 2002, newly applied.

With respect to claims 10-11, Shiraiwa teaches a substrate processing chamber as previously stated.

Shiraiwa does not specifically mention the atmospheric pressure vent line being connected to the vacuum exhaust line, to exhaust the chamber

However, Yanagawa patent from the same field of endeavor, describes in figure 1 an atmospheric pressure vent line being connected to the vacuum exhaust line, to exhaust the chamber.

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to substitute Yanagawa's atmospheric pressure vent line instead of Shiraiwa in Shiraiwa's apparatus to exhaust the chamber.

Claim 11 additionally recites vacuum exhaust line is to be connected to a vacuum pump. ( Yanagaw fgi.1, vacuum exhaust line connected to vacuum pump 8, col. 1 line 21-24).

Claims 16 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shiraiwa ( U.S Patent No. 5,273,423, herein after Shiraiwa) previously applied and Yanagawa et al. ( U.S. Patent No. 5,277,215, herein after Yanagawa) and Terada ( U.S. Patent No. 5,324, 540, herein after Terada) also cited by the applicants in their IDS of April 03, 2002, both newly applied

With respect to claim 16, Shiraiwa teaches a substrate processing chamber as previously stated.

Shiraiwa and Yanagawa do not specifically mention the local exhaust being connected to a space covered by a cover for covering a dust generating portion of the moving mechanism.

However, Terada , a patent form the same field of endeavor, describes in Figure 1 36 or 38 , the local exhaust being connected to a space covered by a cover for covering a dust generating portion of the moving mechanism to locally exhaust the dust.

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to include Terada's local exhaust pipe in place of Shiraiwa's local exhaust in the Apparatus taught by Shiraiwa and Yanagawa to locally exhaust the dust.

The limitation a second valve provided at a portion of said first vacuum exhaust line between said load lock chamber and a connection portion of said first and second vacuum exhaust lines ( Terada fig. 1 lines 36, 38 vales v2 or v3 or v6).

With respect to claim 18, in addition to the previous teachings, its new limitation , namely the chamber exhaust not being connected to the space ( i.e. the space covered by said cover) ( See Terada chamber exhaust 331 with valve 35 not being connected to the space).

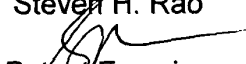
***Response to Arguments***

Applicant's arguments with respect to claims 10,11 and 18 have been considered but are moot in view of the new ground(s) of rejection.


Any inquiry concerning this communication or earlier communication from the examiner should be directed to Steven H. Rao whose telephone number is (703) 306-5945. The examiner can normally be reached on Monday- Friday from approximately 7:00 a.m. to 4:30 p.m.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 308-0956. The Group facsimile number is (703) 308-7724.

Steven H. Rao

  
Patent Examiner

July 13, 2002.

  
OLIK CHAUDHURI  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2800